

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP 10-81

Section I

MANUFACTURER'S NAME BOSTIK WEST, DIV. OF USM CORPORATION, AN EMHART UNIT

STREET ADDRESS 20846 So. Normandie Ave. CITY, STATE, AND ZIP CODE Torrance, Ca. 90502

EMERGENCY TELEPHONE NO. (213) 320-6800

PRODUCT CLASS EPOXY

TRADE NAME BOSTIK

MANUFACTURERS CODE IDENTIFICATION 473-13

Catalyst: C-31

Mix Ratio: 100 parts 473-13(Base)
to 7.1 parts C-31 by weight.

Section II - HAZARDOUS INGREDIENTS

INGREDIENT 473-13(Base Only)	CAS No.	PERCENT (WE.)	TLV		LEL	VAPOR PRESSURE mm Hg.
			PPM	mg/M ³		
Methyl Ethyl Ketone	78-93-3	5-10	200		1.8	70
Methyl n-Butyl Ketone	591-78-6	5-10	25		1.2	10
Butyl Alcohol	71-36-3	<5.0	100		1.7	4
Xylene	1330-20-7	<5.0	100		1.0	7

Section III - PHYSICAL DATA

BOILING RANGE 176-284° F.

VAPOR DENSITY ☒ HEAVIER ☐ LIGHTER THAN AIR

EVAPORATION RATE ☐ FASTER ☒ SLOWER THAN ETHER

PERCENT VOLATILE
BY VOLUME 22%

WEIGHT PER
GALLON 8.7 lbs.

Section IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY Red Label, Flammable

(Min)
FLASH POINT 23° F. Tag Closed Cup LEL 1.0

EXTINGUISHING MEDIA

Exclude air - Use foam, CO₂, steam, water fog,
dry chemicals. Do not use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapor forms explosive mixture with air between
upper and lower explosion limits.

SPECIAL FIRE FIGHTING PROCEDURES

Do not use water, exclude air, use water spray
to cool fire exposed surfaces and to protect
personnel.

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE See Section II

EFFECTS OF OVEREXPOSURE Headache, nausea, dizziness. Breathing vapor will be irritating to nose, throat, and eyes.

EMERGENCY AND FIRST AID PROCEDURES : Skin Exposure: Wash affected area with soap and water. Eye Exposure: Flush with water for at least 15 minutes, consult physician. Ingestion: Consult physician immediately. Inhalation: Remove victim to fresh air, consult physician.

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE

INCOMPATIBILITY (Materials to avoid) Strong oxidizing agents.

CONDITIONS TO AVOID Storage at high temperatures. Sparks & open flame.

HAZARDOUS DECOMPOSITION PRODUCTS

On combustion CO, CO₂, Aldehydes and other organics, oxides of nitrogen.

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Eliminate sources of ignition and clear fumes from area. Prevent liquid from entering sewers, water sources, or low areas. Keep unnecessary personnel away. Shut off source, if possible to do so without hazard. Contain spilled liquid with sawdust, sand or oil absorbing compound. Wash area with detergent & water. Consult disposal expert and ensure conformity with local regulations.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use approved respiratory protection such as an air-supplied mask if used in non ventilated area.

Mechanical: Explosion-proof ventilation equipment. No smoking or open lights.

VENTILATION : Face velocity > 60fpm in confined area.

PROTECTIVE GLOVES Chemically resistant gloves.

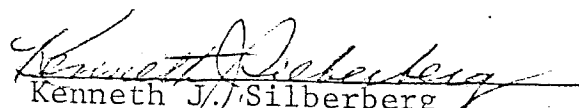
EYE PROTECTION Chemical splash goggles or face shield.

OTHER PROTECTIVE EQUIPMENT Eye bath & Safety shower.

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING : Keep containers closed when not in use. Do Not handle or store near flame, heat or strong oxidants. Adequate ventilation required. Containers of this product may be hazardous when emptied -these OTHER PRECAUTIONS containers retain product residues (vapor, liquid, etc.).

All handling equipment should be electrically grounded. Treat as a very flammable liquid.


Kenneth J. Silberberg
Technical Administrative Manager

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MANUFACTURER'S NAME BOSTIK WEST, DIV. OF USM CORPORATION, AN EMHART UNIT

STREET ADDRESS 20846 So. Normandie Ave. CITY, STATE, AND ZIP CODE Torrance, Ca. 90502

EMERGENCY TELEPHONE NO. (213) 320-6800

PRODUCT CLASS AMINE

TRADE NAME BOSTIK

MANUFACTURERS CODE IDENTIFICATION

C-31

Catalyst for: 473-13; 473-24; &
473-25. Mix Ratio: 100 parts 473-
(Base) to 7.1 parts C-31 by wt.

Section II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS No.	PERCENT (WT.)	TLV		LEL	VAPOR PRESSURE mm Hg.
			PPM	mg/M ³		
C-31 Epoxy Catalyst						
Aminoethylpiperazine	140-31-8	100	*NE		NE	0.05
*NE-Not Established OSHA, ACGIH						

Section III - PHYSICAL DATA

BOILING RANGE 410° F.

VAPOR DENSITY ☒ HEAVIER ☐ LIGHTER THAN AIR

EVAPORATION RATE ☐ FASTER ☒ SLOWER THAN ETHER

PERCENT VOLATILE BY VOLUME Nil WEIGHT PER GALLON 8.22 lbs.

Section IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY Corrosive Material
Combustible Liquid

FLASH POINT 212° PMCC

LEL NE

EXTINGUISHING MEDIA Exclude air - Use foam, CO₂, steam, water fog,
dry chemicals. Do not use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapor forms explosive mixture with air between
upper and lower explosion limits.

SPECIAL FIRE FIGHTING PROCEDURES

Do not use water, exclude air, use water spray
to cool fire exposed surfaces and to protect
personnel.

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE See Section II

EFFECTS OF OVEREXPOSURE Headache, nausea, dizziness. Breathing vapor will be irritating to nose, throat and eyes.

EMERGENCY AND FIRST AID PROCEDURES: Skin Exposure: Wash affected area with soap and water. Exposure: Flush with water for at least 15 minutes, consult physician. Ingestion: Consult physician immediately. Inhalation: Remove victim to fresh air, consult physician.

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE

CONDITIONS TO AVOID: Storage at high temperatures.

INCOMPATIBILITY (Materials to avoid) Strong oxidizing agents, Inorganic acids Sparks & Open Flame

HAZARDOUS DECOMPOSITION PRODUCTS

On combustion CO, CO₂, Oxides of nitrogen.

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID None

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Eliminate sources of ignition and clear fumes from area. Prevent liquid from entering sewers, water sources, or low areas. Keep unnecessary personnel away. Shut off source, if possible to do so without hazard. Contain spilled liquid with sawdust or oil absorbing compound. Wash area with detergent & water. Consult disposal expert and ensure conformity with local regulations.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION Use approved respiratory protection such as an air-supplied mask if used in non ventilated area.
Mechanical: Explosion-proof ventilation equipment. No smoking or open lights.

VENTILATION Face velocity > 60 fpm in confined area.

PROTECTIVE GLOVES: Chemically resistant gloves.


EYE PROTECTION: Chemical splash goggles or face shield.

OTHER PROTECTIVE EQUIPMENT: Eye bath & safety shower.

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Material is sensitive to moisture & should be kept in tightly closed containers. Do not handle or store near flame, heat or strong oxidants. Adequate ventilation required. Containers of this product may be hazardous when emptied these containers retain product residues (vapor, liquid, etc).

All handling equipment should be electrically grounded. Treat as a very flammable liquid.


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Technical Administrative Manager